

REMARKS

Applicant thanks the Examiner for the consideration given the present application.

Claims 1 and 3-8 are now present in this application. Claims 1, 4, 6 and 7 are independent. Claims 6, 7 and 8 are amended. No new matter is involved. Reconsideration of this application, as amended, is respectfully requested.

REJECTIONS UNDER 35 U.S.C. §112, SECOND PARAGRAPH

Claims 6 and 7 stand rejected under 35 U.S.C. §112, second paragraph, for failing to set forth the subject matter which applicant regards as his invention. This rejection is respectfully traversed.

The Examiner indicates lack of proper antecedent basis in claims 6 and 7 for certain terms in those claims. Applicant respectfully submits that the claims as they stand are proper and do set forth the subject matter which Applicant regards as its invention. Nevertheless, in the interest of expediting prosecution, Applicant has amended the preambles of claims 6 and 7 to provide explicit antecedent basis for the claim terms that the Examiner believes do not have proper antecedent basis. In this regard, the preamble of claim 6 has been amended to recite a system for checking disk loading status in an optical disk driver having multiple disk loading stages, a plurality of optical sensors that output signals and a disk loading switch that outputs signals, and

the preamble of claim 7 has been amended to recite a system for checking disk loading status in an optical disk driver having multiple disk loading stages, a plurality of optical sensors and a disk loading switch. The body of those claims has also been amended to properly refer back to features in the amended claim preambles.

Applicant respectfully submits that claims 6 and 7, as amended, fully satisfy the requirements of 35 U.S.C. §112, second paragraph.

Although not mentioned in the statement of which claims are rejected under 35 U.S.C. §112, second paragraph, the body of the rejection addresses claim 8, indicating that “the same limitation with respect to predetermined time has not been established.” The rejection continues by alleging that the determination step requires at the very least, a comparison between the recognition of the events and a passage of time and that the time period in Figure 4 is not clear.

Claim 8 is a method claim that depends from independent method claim 1. Claim 8 is amended to be consistent with claim 1, which recites a discrimination step, not a determining step.

In reply, Applicant respectfully points out that the “predetermined time” feature has been established by positively reciting it in claim 8. The allegation in the Office Action that the determination (discrimination) step recited in claim 8 requires a comparison between the recognition of the events and a passage of

time is irrelevant to whether or not Applicant has complied with 35 U.S.C. §112, second paragraph.

The test for compliance with the second paragraph of 35 U.S.C. §112, as stated in Miles Lab., Inc. v. Shandon Inc., 997 F.2d 870, 875, 27 USPQ2d 1123, 1126 (Fed. Cir. 1993), ~~cert. denied~~, 510 U.S. 1100 (1994) is whether one skilled in the art would understand the bounds of the claims when read in light of the specification. If the claims, read in light of the specification, reasonably apprise those skilled in the art of the scope of the invention, Section 112 demands no more. See, also, In re Merat, 519 F.2d 1390, 1396, 186 USPQ 471, 476 (CCPA 1975), which stated that the question under Section 112, second paragraph is whether the claim language, when read by a person of ordinary skill in the art in light of the specification, describes the subject matter with sufficient precision that the bonds of the claimed subject matter are distinct. See, also, In re Warmerdam, 33 F3d 1354, 1361, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994). Moreover, this claims recites "substantially." Use of that term in a claim does not render the claim indefinite if the specification provides a standard whereby one of ordinary skill in the art would understand what is claimed when the claim is read in light of the specification, Seattle Box Co., Inc. v. Industrial Coating and packing, Inc., 731 F.2d 818, 826, 221 USPQ 568, 573-4 (Fed. Cir. 1984).

The Office Action does not state that the meaning of claim 8 is unclear and Applicant respectfully submits that its meaning is crystal clear.

Applicant respectfully submits that, to the extent that the Office Action requests further elaboration of the time period in Fig. 4, the Office Action finds no proper basis under 35 U.S.C. §112, second paragraph, which concerns the invention as claimed. Fig. 4 is not part of the claim. Rather, it is part of the drawing. As such, it is not properly addressed in a rejection under 35 USC §112, second paragraph.

Reconsideration and withdrawal of this rejection of claims 6, 7 and 8 under 35 U.S.C. §112, second paragraph, is respectfully requested.

REJECTIONS UNDER 35 U.S.C. §103

On page 3 of the Office Action, claims 4 and 7 are said to be rejected under 35 U.S.C. §103(a) as being unpatentable over Applicant's "acknowledged prior art of figure 1" in view of JP 60-136059 further considered with U.S. Patent 4,688,124 to Scribner. This rejection is respectfully traversed.

A complete discussion of the Examiner's rejection is set forth in the Office Action, and is not being repeated here.

Firstly, Applicant notes that the body of the rejection refers to claim 5 in the last sentence on page 4. Accordingly, this rejection is considered to be of claims 4, 5 and 7.

It is well settled that a rejection under 35 U.S.C. §103 cannot properly be based on speculation but must be based on objective factual evidence of record. See, In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968). See, also, In re GPAC, Inc., 35 USPQ2d 1116 at 1123 (Fed. Cir. 1995) and Ex parte Haymond, 41 USPQ2d 1217 at 1220 (Bd. Pat. App. & Int. 1996).

A factual inquiry whether to modify a reference must be based on objective evidence of record, not merely conclusory statements of the Examiner. See, In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002).

Moreover, allegations of motivation to modify a reference that are in the form of broad generic conclusions unsupported by objective factual evidence and, standing alone, are not “evidence” of proper motivation to combine these references. See In re Dembiczak, 175 F.3d 994 at 1000, 50 USPQ2d 1614 at 1617 (Fed. Cir. 1999).

Additionally, the Office Action has not made out a *prima facie* case that Fig. 1 is admitted prior art. Fig. 1 is labeled “conventional art” but is not admitted prior art. In order for something to be considered admitted prior art, the admission must be clear, unmistakable and unequivocal. See, in this regard, Fleming v. Giesa (BdPatApp&Int) 13 USPQ2d 1052 (7/17/1989); Harner et al. v. Barron et al., 215 USPQ 743 (Comr Pats 1981), Suh v. Hoefle (BdPatApp&Int) 23 USPQ2d 1321 (4/30/1991); Issidorides v. Ley

(BdPatApp&Int) 4 USPQ2d 1854 (4/2/1985); and Ex parte The Successor In Interest Of Robert S. McGaughey (BdPatApp&Int) 6 USPQ2d 1334 (3/4/1988). No such admission is found in the Application.

Moreover, Applicant's below named representative has been informed by a representative of the Assignee of this Application that he does not know whether Fig. 1 is prior art to Applicant. It would appear that this is evidence that there is no clear, unequivocal and unmistakable admission of record that Fig. 1 is prior art to Applicant.

Furthermore, Fig. 1 contains no disclosure of detecting if a jam occurs, or of ejecting if a jam occurs, or of discrimination/determining if certain disc loading signals occur for a predetermined time, or of relating that discrimination/determination has anything to do with disc jamming, or of using such discrimination/determination to deal with a jam.

JP '059 determines mis-loading of a disc and uses a pulse from a disc index hole sensor to automatically release a clamp state of a disc and eject the disk if the pulse from the index hole sensor does not produce a prescribed signal even though a medium sensor detects loading of the disc. However, JP '059 does not disclose or suggest a plurality of optical sensors or multiple loading stages of a disk. Nor does JP '059 disclose the recited transmitting data to a host in the case that the disk has been jammed. While JP '059 discloses a host computer, it does not disclose transmitting information to the

host connected through an interface in case the disk has been jammed, or performing a disk ejection operation according to a disk ejection command received from the host.

Although Scribner is mentioned in the statement of the rejection on page 3 of the Office Action, Scribner is not mentioned in the body of the rejection at all. Clarification is requested. However, because there is no application of Scribner to the merits, the rejection is improper and there is no need to discuss Scribner on the merits.

Claim 7 recites a combination of features including determining that the values of the sensing signals outputted from the plurality of optical sensors and a disk loading switch are maintained for more than a predetermined time. This feature is neither disclosed nor suggested by Applicant's Fig. 1 or JP '059. Scribner does not disclose this feature, either.

Thus, no combination of the applied references, i.e., Applicant's Fig. 1 (which has not been demonstrated to be prior art to Applicant) and JP '059 can possibly render the claimed invention obvious.

Accordingly, the Office Action fails to present a *prima facie* case of obviousness of claims 4, 5 and 7.

Reconsideration and withdrawal of this rejection are respectfully requested.

Claims 1 and 6 stand rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent 4,594,700 to Takahashi in view of JP 60-136059 and U.S. Patent 4,688,124 to Scribner. This rejection is respectfully traversed.

Takahashi admittedly does not have plural optical sensors and does not appear to have multistage loading, as recited. In fact, Takashi does not disclose disk jam detection or disk jam ejection.

The Office Action alleges that “[T]he Takehashi et al system does describe the determination of appropriate disc loading/presence and if such is not detected for a ‘predetermined time, i.e., not present.’” Unfortunately, the Office Action fails to state where Takehashi discloses these features and Applicant has not been able to find them in Takehashi. These features are certainly not disclosed in Takehashi’s “abstract/title/col. 11 lines 29 to col. 13 line 15, see figures 10 & 13,” which are referred to on page 5 of the outstanding Office Action. Takehashi discloses determining whether or not a disc is present in the disk player, but says nothing about disk jams.

As noted above, JP ‘059 determines mis-loading of a disc and uses a pulse from a disc index hole sensor to automatically release a clamp state of a disc and eject the disk if the pulse from the index hole sensor does not produce a prescribed signal even though a medium sensor detects loading of the disc. However, JP ‘059 does not disclose or suggest a plurality of optical sensors or multiple loading stages of a disk. Nor does JP ‘059 disclose the recited

transmitting data to a host in the case that the disk has been jammed. While JP '059 discloses a host computer, it does not disclose transmitting information to the host connected through an interface in case the disk has been jammed, or performing a disk ejection operation according to a disk ejection command received from the host.

Scribner is not discussed in any detail whatsoever in the body of the rejection other than to refer to "additional teaching from Scribner." However, absent identification of the "additional teaching" and how that non-identified additional teaching pertains to the obviousness of the claimed invention, Applicant has been denied substantive and procedural due process by being presented with a rejection that is unclear and unable to be understood.

Moreover, Applicant respectfully submits that even if the proposed reference combination of Takehashi and JP '059 were proper, it still is missing positively recited features of the claimed invention. With respect to claim 1, the feature of multiple loading stages is not disclosed, transmitting the information to a host computer through an interface that the disk has been jammed is not disclosed, and performing a disk-ejection operation according to a command received from a host are neither disclosed nor suggested by these references.

The Office Action also states "[A]lternatively, Scribner teaches in this environment (floppy disk load) the ability to sense a jam condition – see col. 10 lines 7-11 for instance." The Office Action continues by concluding that in view

of Scribner it “would have been obvious to modify the above systems with the additional teaching from Scribner.” Unfortunately, the Office Action never discloses how the “above systems” are to be modified in view of Scribner, leaving that to speculation. It is well settled that it is improper to base a rejection on speculation but must be based on objective factual evidence of record. See, In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert denied, 389 U.S. 1057 (1968). See, also, In re GPAC, Inc., 35 USPQ2d 1116 at 1123 (Fed. Cir. 1995) and Ex parte Haymond, 41 USPQ2d 1217 at 1220 (Bd. Pat. App. & Int. 1996).

Moreover, Scribner discloses that if sensor 158 does not detect the leading edge 20a of the floppy disk 20 shortly after detection by the sensor 160, then rollers 58 and 60 are stopped and a signal given that the loading mechanism is jammed. So, even if these references were properly combined, the reference combination would not render the claimed invention obvious. This is most definitely not a disclosure of determining the loading status of an optical disk during multiple loading stages of the disk or of transmitting information to a host through an interface in case the disk has been jammed or performing a disk ejection operation according to a disk ejection command received from the host.

Accordingly, the Office Action fails to make out a *prima facie* case of obviousness of the invention recited in claims 1 and 6,

Reconsideration and withdrawal of this rejection of claims 1 and 6 are respectfully requested.

Claim 3 stands rejected under 35 U.S.C. §103(a) as unpatentable over the art applied in the preceding rejection of claim 1 and further in view of U.S. Patent 5,191,569 to Kurosawa et al. ("Kurosawa").

None of the applied references disclose or suggest the combination of features recited in claim 1, including (1) the step of discriminating loading status of an optical disk during multiple loading stages of the disk on the basis of sensing signals respectively outputted from the plurality of optical sensors and from a disk loading switch for sensing whether the optical disk has been completely loaded, or (2) means for discriminating loading status of an optical disk during multiple loading stages of the disk on the basis of sensing signals respectively outputted from the plurality of optical sensors and from a disk loading switch, or (3) the "being maintained as such for more than a predetermined" time feature.

The Office Action relies on Kurosawa for the ability of sensing/having a disc clamp state recognized. Applicant has reviewed Kurosawa and does not find this feature disclosed therein, and the Office Action does not specify where this feature is found in Kurasowa. Kurasowa detects presence or absence of a disc in a tray – col. 10, lines 16-55, and discloses disc clampers 8 and 9 – col. 11, lines

1-9, but Applicant has not been able to find that Kurosawa senses a disc clamp state.

Moreover, Kurosawa merely discloses a single detecting member 400 to detect the presence or absence of a disk in each of the magazine trays – Figs. 8 and 17 and associated disclosure in the specification, and teaches that it eliminates jamming of disks – see col. 5, lines 10-14.

Applicant cannot find multiple stage detection of disks in Kurosawa or detection of a jam or ejection of a jammed disk. In fact, as noted above, Kurosawa indicates that its device eliminates jamming of disks.

Accordingly, one of ordinary skill in the art would not be motivated to look to Kurosawa for jam-detection features, let alone to look to Kurosawa to use a disk completely loaded detection feature to determine the existence of a disk jam, as recited.

As a result, the Office Action fails to provide proper motivation to look to Kurosawa to modify the aforementioned reference combination, which does not render the claimed features obvious at least for the reasons stated above regarding the traversal of the rejection of claim 1.

Also, claim 3 recites the predetermined time feature for determining that a disk has been jammed. There is absolutely no objective evidence of record that any of the applied references disclose such a feature. The assertion in the Office Action that the Examiner interprets the operation of the Scribner system as

meeting this time limitation is pure speculation, and it is improper to base a rejection on speculation. As is well settled, a rejection based on Section 103 must rest on a factual basis, with the facts being interpreted without hindsight reconstruction of the invention from the prior art. In making this evaluation, the Examiner has the initial duty of supplying the factual basis for the rejection advanced. The Examiner may not, because of doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis. See, In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968).

Moreover, claim 3 does not recite a clamp feature, so Applicant is unclear as to why this feature is even discussed in this rejection.

Furthermore, the Office Action does not state how the base reference combination is to be modified with this undisclosed clamp-sensing feature. The rejection is improper for this reason alone.

Additionally, the Office Action states that it interprets the operation of the Scribner system as meeting the recited time limitation. Unfortunately, the Office Action fails to present any objective factual evidence to support this conclusion as required by existing case law. See, In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002).

Accordingly, the Office Action fails to make out a *prima facie* case of

obviousness of the invention recited in claim 3,

Reconsideration and withdrawal of this rejection of claim 3 are respectfully requested.

The Office Action rejects claim 8 under 35 U.S.C. §103(a) as unpatentable over the art applied above in the rejection of claim 1, and further in view of U.S. Patent 5,828,641 to Abe et al. ("Abe"). This rejection is respectfully traversed.

None of the applied references disclose or suggest the combination of features recited in claim 1, including (1) the step of discriminating loading status of an optical disk during multiple loading stages of the disk on the basis of sensing signals respectively outputted from the plurality of optical sensors and from a disk loading switch for sensing whether the optical disk has been completely loaded, or (2) means for discriminating loading status of an optical disk during multiple loading stages of the disk on the basis of sensing signals respectively outputted from the plurality of optical sensors and from a disk loading switch, or (3) the "being maintained as such for more than a predetermined" time feature.

The Office Action states that Abe discusses, with respect to Fig. 2, the ability to determine if appropriate load conditions are met for a predetermined time and recognition of such an occurrence. The Office Action concludes that it would be obvious to modify the base system and perform the ejection at the appropriate time.

Applicant respectfully disagrees. Abe is directed to detecting if discs of the wrong diameter are inserted into the disc player, and ejecting discs of the wrong diameter, but not to detecting jams. Abe has no disclosure of detecting jammed discs or of ejecting discs based on the fact that the disc is jammed.

The Office Action has not made out a *prima facie* case of proper motivation to modify the reference combination applied in the rejection of claim 1 in view of Abe because that reference combination does not use different diameter discs and would have no incentive to use Abe's ejection mechanism.

Moreover, even Abe does not disclose using its disc-ejection system to eject jammed discs, which is evidence that it would not be obvious to do so.

Accordingly, the Office Action fails to make out a *prima facie* case of obviousness of the invention recited in claim 8,

Furthermore, exactly how the primary reference is to be modified by the secondary reference and/or how that combination is to be modified by the tertiary reference is not set forth in any detail. Moreover, whereas Scribner discloses two sensors associated with its jam detection, i.e., sensors 158 and 160, JP 60-136059 only discloses one such sensor 6. Furthermore, whereas JP 60-136059 ejects a misloaded disk, Scribner contains no such teaching or ejecting a misloaded disk. Applicant is given no indication of what features of the base reference are modified by what features of the secondary and tertiary references, and how those unspecified features are to be modified.

Accordingly, this rejection is fundamentally flawed and denies Applicant the fundamental substantive and procedural due process required to be given patent applicants under the Administrative Procedures Act. See in this regard, In re Zurko, 119 S.Ct. 1816, 50 USPQ2d 1930 (1999), and In re Gartside, 53 USPQ2d 1769 (Fed. Cir. 2000).

Moreover, as noted above Scribner does not disclose or suggest that when the combination of the sensing signals respectively outputted is not a value indicating a state that the disk is completely mounted and being maintained as such for more than a predetermined time, it is discriminated that the disk has been jammed, as recited.

Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

ADDITIONAL CITED REFERENCES

Because the remaining references cited by the Examiner have not been utilized to reject the claims, but have merely been cited to show the state of the art, no comment need be made with respect thereto.

CONCLUSION

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that

the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Robert J. Webster, Registration No. 46,472, at (703) 205-8000, in the Washington, D.C. area.

Prompt and favorable consideration of this Amendment is respectfully requested.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant respectfully petitions for a one (1) month extension of time for filing a reply in connection with the present application, and the required fee of \$120.00 is attached hereto.

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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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